

EXAMINER'S Amendment

switching transistor, and in which a voltage appearing in the auxiliary winding is used as a power supply for operating the control IC; and

when the voltage appearing in the auxiliary winding is
5 lower than a preset voltage, the driver circuit sets the lamp
power supplying circuit to a stop ~~a~~ state.

2. A power supply device comprising:

a rectifying circuit which full-wave rectifies an input
10 AC power supply;

a power-factor improving circuit which improves a power factor of an output of the rectifying circuit;

a lamp power supplying circuit to which a DC output of the power-factor improving circuit is supplied as an input power
15 supply, and which supplies a power to a light source lamp;

a driver circuit which operates the lamp power supplying circuit; and

a DC-DC converting circuit which uses a transformer to convert the DC output of the power-factor improving circuit to
20 a DC current of a predetermined voltage, and which supplies the DC current to a secondary side;

wherein an auxiliary winding is disposed in a primary side of the transformer of the DC-DC converting circuit;

the power-factor improving circuit is a circuit which has
25 a switching transistor and a control IC for controlling the